

REMARKS

Claims 1-17 are pending in the application.

Claims 5-17 are allowed.

Claims 1-4 are rejected.

Claims 1-3 are rejected under 35 U.S.C. 102(a).

Claim 4 is rejected under 35 U.S.C. 103(a).

Claim Rejections – 35 U.S.C. § 102

Claims 1-3 are rejected under 35 U.S.C. § 102(a) as being anticipated by Kr. 1020010065747 to Baek, et al. (“Baek”). Claim 1 has been amended. In amended form, claim 1 specifies a method of fabricating a semiconductor substrate. This method comprises:

- forming an isolation layer in a substrate of first conductivity type to define an active region;
- diffusing impurities of second conductivity type in a predetermined region of the active region to form an impurity diffused region;
- recessing a region of the isolation layer and exposing a portion of the substrate of first conductivity type under the impurity diffused region; and
- forming a salicide layer on a surface of the impurity diffusion region of second and on a surface of the exposed portion of the substrate of first conductivity type.

In particular, claim 1 has been amended to emphasize that the salicide layer is formed *on a surface* of the impurity diffused region and *on a surface* of the exposed portion of the substrate of first conductivity type. In contrast, Baek discloses “forming a salicide layer only on upper surfaces of the gate electrode layer and the source/drain region.” See p. 3, lines 18-19. This can clearly be seen in Figure 5 of Baek, and in the related portion of his specification, which states that “a thin salicide layer 55 is formed on upper surfaces of the gate electrode 25 and the source/drain regions 45.” See p. 7, lines 21-22. Put another way, in Figure 5 Baek discloses a source/drain region 45 of second conductivity type and a salicide layer 55 formed on this source/drain region 45. However, the salicide layer 55 does not contact the underlying substrate of first conductivity type. In addition, Baek would not want the salicide layer 55 to contact the substrate of first conductivity type because Baek’s teaching are directed toward preventing a short-circuit between a metal plug 70 and a well region 10. Thus, by amending claim 1 to specify forming the salicide layer “on the surface of” instead of “covering” both the impurity diffused region of second conductivity type and the exposed portion of the substrate of first conductivity type, the applicants submit that

claim 1 is not anticipated by Baek. Additionally, these amendments to claim 1 make claim 1 more closely track the language of allowable claim 5.

The applicants respectfully point out that the Office Action incorrectly asserts that element 40 is a salicide layer in Figures 4 and 5 of Baek (Office Action p. 2, last line). Indeed, the Office Action later correctly identifies the salicide layer as element 55 (Office Action p. 6, line 20), and identifies element 40 as part of the impurity diffused layer (Office Action p. 6, line 11 – See also Baek p. 7, lines 19-20: “As shown in Fig. 4, source/drain regions 45 are formed to be bent to the round 40 at the edge of the device isolation layer 15 by implanting ions into both sides of the gate ‘B.’”).

Thus, because Baek does not teach every limitation of claim 1, Baek cannot anticipate claim 1. As such, the Applicants submit that claim 1 is in proper form for allowance, and request that the rejection under § 102(a) be removed.

Claims 2 and 3 depend from claim 1. Based at least on their dependency, the Applicants submit that claims 2 and 3 are likewise in proper form for allowance.

Claim Rejection – 35 U.S.C. § 103

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baek in view of U.S. Patent No. 5,741,735 issued to Violette, et al. (“Violette”). Claim 4 depends from claim 1. As the above arguments with respect to claim 1 demonstrate, Baek does not teach all of the elements claimed in claim 1. In addition, Violette neither teaches nor suggests these missing elements. In particular, Violette does not teach or suggest recessing a region of the isolation layer or forming a salicide layer on a surface of the impurity diffused region and on a surface of the exposed portion of the substrate under the impurity diffused region. Thus, because neither Baek nor Violette, independently or in combination, teach or suggest all of the elements of claim 4, claim 4 is not obvious over Baek in view of Violette. As such, and for at least the reasons mentioned above, Applicants submit that claim 4 is in proper form for allowance and request that the rejection under § 103(a) be removed.

Allowable Subject Matter

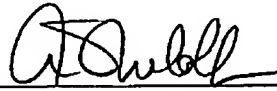
Claims 5-17 are allowed. Applicants thank Examiner for acknowledging the patentable subject matter of claims 5-17.

Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1-17 of the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.



Alan T. McCollom
Reg. No. 28,881

MARGER JOHNSON & McCOLLOM, P.C.
210 SW Morrison Street, Suite 400
Portland, OR 97204
503-222-3613
Customer No. 20575

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Li Mei Vermilya